

Technical Data Sheet

Screw Clamps and Universal Clamps



Connecting Technology



H.W. ECKHARDT
CORPORATION
ENGINEERED FASTENERS



Comply with DIN 3017: Embossed clamp band, large clamping range, high holding force

Short housing saddle: uniform radial load with good seal

Weld-free body connection: secure connection, good corrosion resistance

Specially formed strip edges: reduced risk of damage to parts being clamped

Worm Drive Clamps conform to DIN¹ 3017 Product Group 126 & 177

Material PG 126

W2 Band and housing: stainless steel

Material No. 1.4016/UNS S43000

Hexagon-head screw: steel, zinc-plated

Material PG 177

W4 All parts: stainless steel

Material No. 1.4301/UNS S30400

Series

Diameter range	width x thickness
8.0 – 160.0 mm	9.0 x 0.6 mm
16.0 – 160.0 mm	12.0 x 0.7 mm

Other material qualities and diameter ranges on request.

Clamp design

Oetiker Worm Drive Clamps are technically advanced, multi-range hose clamps, which cover a very wide range of clamping diameters. Hoses of differing diameters can be securely connected with a single size.

Manufactured by cold-forming, the bands of these worm drive clamps have a slightly curved form. The depth of the thread impressions reduces to each side – the thread impressions have their full depth in the middle.

Worm drive clamps in material quality W2 have a 7 A/F hexagon-head screw with cross recess (Phillips). Clamps in material quality W4 have a hexagon-head screw (7 A/F) with a standard screwdriver slot.

Recommended installation

For professional installation, we recommend using a flexible screwdriver. This tool ensures safe installation even in hard-to-reach locations. For series installation requiring high process reliability, electronically monitored Oetiker controlled-torque screwdrivers should be used.

¹ DIN = Deutsches Institut für Normung

The data in this catalog are based on many years experience. They are intended for reference, not as design specifications.

Static tightening torque:

Clamping range	B = 9	B = 12
8 – 20	2 + 0.5 Nm	
From 12 – 160	3 + 0.5 Nm	
From 16 – 160		5 + 0.5 Nm

Static test torque:

Clamping range	B = 9	B = 12
8 – 20	max. 2.6 Nm	
From 12 – 160	max. 4 Nm	
From 16 – 160		max. 6.5 Nm

Order information

Item No.	Ref. No.	Size range (mm)	Item No.	Ref. No.	Size range (mm)
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Worm Drive Clamps W2

Band width 9 mm, thickness 0.6 mm

12600257	WD9 8-12 C7 W2	8 – 12
12600258	WD9 10-16 C7 W2	10 – 16
12600260	WD9 12-22 C7 W2	12 – 22
12600262	WD9 16-27 C7 W2	16 – 27
12600263	WD9 20-32 C7 W2	20 – 32
12600265	WD9 25-40 C7 W2	25 – 40
12600266	WD9 30-45 C7 W2	30 – 45
12600268	WD9 40-60 C7 W2	40 – 60
12600269	WD9 50-70 C7 W2	50 – 70
12600270	WD9 60-80 C7 W2	60 – 80
12600271	WD9 70-90 C7 W2	70 – 90
12600272	WD9 80-100 C7 W2	80 – 100
12600273	WD9 90-110 C7 W2	90 – 110
12600274	WD9 100-120 C7 W2	100 – 120
12600275	WD9 110-130 C7 W2	110 – 130
12600276	WD9 120-140 C7 W2	120 – 140
12600277	WD9 130-150 C7 W2	130 – 150
12600278	WD9 140-160 C7 W2	140 – 160

Worm Drive Clamps W4

Band width 9 mm, thickness 0.6 mm

17700188	WD9 8-12 C7 W4	8 – 12
17700189	WD9 10-16 C7 W4	10 – 16
17700191	WD9 12-22 C7 W4	12 – 22
17700193	WD9 16-27 C7 W4	16 – 27
17700194	WD9 20-32 C7 W4	20 – 32
17700196	WD9 25-40 C7 W4	25 – 40
17700197	WD9 30-45 C7 W4	30 – 45
17700199	WD9 40-60 C7 W4	40 – 60
17700200	WD9 50-70 C7 W4	50 – 70
17700201	WD9 60-80 C7 W4	60 – 80
17700202	WD9 70-90 C7 W4	70 – 90
17700203	WD9 80-100 C7 W4	80 – 100
17700204	WD9 90-110 C7 W4	90 – 110
17700205	WD9 100-120 C7 W4	100 – 120
17700206	WD9 110-130 C7 W4	110 – 130
17700207	WD9 120-140 C7 W4	120 – 140
17700208	WD9 130-150 C7 W4	130 – 150
17700209	WD9 140-160 C7 W4	140 – 160

Worm Drive Clamps W2

Band width 12 mm, thickness 0.7 mm

12600298	WD12 16-27 C7 W2	16 – 27
12600299	WD12 20-32 C7 W2	20 – 32
12600301	WD12 25-40 C7 W2	25 – 40
12600302	WD12 30-45 C7 W2	30 – 45
12600304	WD12 40-60 C7 W2	40 – 60
12600305	WD12 50-70 C7 W2	50 – 70
12600306	WD12 60-80 C7 W2	60 – 80
12600307	WD12 70-90 C7 W2	70 – 90
12600308	WD12 80-100 C7 W2	80 – 100
12600309	WD12 90-110 C7 W2	90 – 110
12600310	WD12 100-120 C7 W2	100 – 120
12600311	WD12 110-130 C7 W2	110 – 130
12600312	WD12 120-140 C7 W2	120 – 140
12600313	WD12 130-150 C7 W2	130 – 150
12600314	WD12 140-160 C7 W2	140 – 160

Worm Drive Clamps W4

Band width 12 mm, thickness 0.7 mm

17700229	WD12 16-27 C7 W4	16 – 27
17700230	WD12 20-32 C7 W4	20 – 32
17700232	WD12 25-40 C7 W4	25 – 40
17700233	WD12 30-45 C7 W4	30 – 45
17700235	WD12 40-60 C7 W4	40 – 60
17700236	WD12 50-70 C7 W4	50 – 70
17700237	WD12 60-80 C7 W4	60 – 80
17700238	WD12 70-90 C7 W4	70 – 90
17700239	WD12 80-100 C7 W4	80 – 100
17700240	WD12 90-110 C7 W4	90 – 110
17700241	WD12 100-120 C7 W4	100 – 120
17700242	WD12 110-130 C7 W4	110 – 130
17700243	WD12 120-140 C7 W4	120 – 140
17700244	WD12 130-150 C7 W4	130 – 150
17700245	WD12 140-160 C7 W4	140 – 160

Worm Drive Clamps W2B, W3, W5

Band width 9 mm and 12 mm

On request

North America: PG 126



North America: PG 177



Housing with screw
Housing saddle

Conforms to SAE J1508 Type “F” (only for the North American market):

Perforated band, large clamping range

Short housing saddling: even radial load

Robust housing connection: high radial loads

High quality materials: good corrosion resistance

Worm Drive Clamps North America conform to SAE¹ J1508 Type “F” Product Group 126 & 177

Material 126

Band and housing are stainless steel materials

UNS 201/301, respectively

Hex-head screw is carbon steel, zinc-plated

Material 177

Band and housing are stainless steel materials

UNS 201/301, respectively

Hex-head screw is stainless steel, UNS 410

Series

Diameter range	width x thickness
3/8 – 7.0 in	1/2 x 0.025 in
10 – 178 mm	12.7 x 0.63 mm

Other material qualities and diameter ranges on request.

Oetiker Worm Drive Clamps are suitable for numerous applications, for example for agricultural and forestry machinery, on ship and marine applications, in maintenance, repair and operations industries, etc. As a result of the generous clamping range, the same size of clamp can be used for several joint diameters.

A choice of materials to suit the application makes them a practical solution for the low and medium pressure ranges. Oetiker Worm-Drive Clamps comply fully with the requirements of SAE J1508 for Type “F” clamps.

Recommended installation

For professional installation, we recommend use of a flexible screwdriver. This tool ensures safe installation even in hard-to-reach locations.

In series production where there are high process reliability requirements, use of an electronically-monitored Oetiker torque screwdriver should be considered.

¹ SAE = Society of Automotive Engineers

The data in this catalog are based on many years experience. They are intended for reference, not as design specifications.

Item No.	Installation tool
14100316	Flexible screwdriver 5/16"

Recommended installation torque

Product Group	Torque (in-lb/Nm)
126	max. 30/max. 3.4
177	max. 35/max. 4.0

Minimum ultimate torque

Product Group	Torque (in-lb/Nm)
126	min. 60/min. 6.9
177	min. 60/min. 6.9

Order information

Item No.	SAE Size No.	Diameter range (in)	Diameter range (mm)	Item No.	SAE Size No.	Diameter range (in)	Diameter range (mm)
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Worm Drive Clamps PG 126

Band width 1/2 in (12.7 mm), thickness 0.025 in (0.63 mm)

12600359	6	3/8 – 7/8	9 – 22
12600374	8	7/16 – 1	11 – 25
12600375	10	1/2 – 1 1/16	13 – 27
12600376	12	9/16 – 1 1/4	14 – 32
12600377	16	11/16 – 1 1/2	17 – 38
12600378	20	3/4 – 1 3/4	19 – 44
12600379	24	1 – 2	25 – 51
12600380	28	1 1/4 – 2 1/4	32 – 57
12600381	32	1 1/2 – 2 1/2	38 – 63
12600382	36	1 13/16 – 2 3/4	46 – 70
12600383	40	2 – 3	52 – 76
12600384	44	2 1/4 – 3 1/4	57 – 82
12600385	48	2 1/2 – 3 1/2	65 – 89
12600386	52	2 3/4 – 3 3/4	70 – 95
12600387	56	3 – 4	78 – 101
12600388	60	3 1/4 – 4 1/4	83 – 108
12600389	64	2 1/2 – 4 1/2	64 – 114
12600390	72	3 – 5	76 – 127
12600391	80	3 1/2 – 5 1/2	89 – 140
12600392	88	4 – 6	102 – 152
12600393	96	4 1/2 – 6 1/2	114 – 165
12600394	104	5 – 7	127 – 178

Worm Drive Clamps PG 177

Band width 1/2 in (12.7 mm), thickness 0.025 in (0.63 mm)

17700338	6	3/8 – 7/8	9 – 22
17700339	8	7/16 – 1	11 – 25
17700340	10	1/2 – 1 1/16	13 – 27
17700341	12	9/16 – 1 1/4	14 – 32
17700342	16	11/16 – 1 1/2	17 – 38
17700343	20	3/4 – 1 3/4	19 – 44
17700344	24	1 – 2	25 – 51
17700345	28	1 1/4 – 2 1/4	32 – 57
17700346	32	1 1/2 – 2 1/2	38 – 63
17700347	36	1 13/16 – 2 3/4	46 – 70
17700348	40	2 – 3	52 – 76
17700349	44	2 1/4 – 3 1/4	57 – 82
17700350	48	2 1/2 – 3 1/2	65 – 89
17700351	52	2 3/4 – 3 3/4	70 – 95
17700352	56	3 – 4	78 – 101
17700353	60	3 1/4 – 4 1/4	83 – 108
17700354	64	2 1/2 – 4 1/2	64 – 114
17700355	72	3 – 5	76 – 127
17700356	80	3 1/2 – 5 1/2	89 – 140
17700357	88	4 – 6	102 – 152
17700358	96	4 1/2 – 6 1/2	114 – 165
17700359	104	5 – 7	127 – 178